

What is claimed is:

1. A system for cleaning a contaminated matter comprising dioxins by decomposing the dioxins in the contaminated matter, wherein the system comprises a reaction tank holding at least:

at least one of crushed cells and fractions of the crushed cells comprising a pellicle of *Bacillus midousuji* cultured in the presence of a chlorinated aromatic compound which has a substituent comprising an oxygen atom bonded to an aromatic ring and having a chloro group bonded to an aromatic ring;

the contaminated matter; and
an aqueous medium.

2. The system according to claim 1, wherein the system comprises a filtration means for separating the aqueous medium and a solid matter from a matter held in the reaction tank to remove the aqueous medium.

3. The system according to claim 1, wherein the system comprises:

a seclusion means for secluding a source of the contaminated matter;

a fluid production means for producing a fluid comprising the contaminated matter by soaking the contaminated matter from the source of the contaminated

matter in at least water; and

a fluid transport means for transporting the fluid comprising the contaminated matter toward the reaction tank.

5

4. The system according to claim 2, wherein the system comprises:

a seclusion means for secluding a source of the contaminated matter;

10 a fluid production means for producing a fluid comprising the contaminated matter by soaking the contaminated matter from the source of the contaminated matter in at least water; and

15 a fluid transport means for transporting the fluid comprising the contaminated matter toward the reaction tank.

20 5. The system according to claim 3, wherein the fluid production means is a means of washing the contaminated matter for washing the contaminated matter down by jetting at least water to the source of the contaminated matter.

25 6. The system according to claim 4, wherein the fluid production means is a means of washing the contaminated matter for washing the contaminated matter down by jetting at least water to the source of the contaminated matter.

7. A method of cleaning a contaminated matter comprising dioxins by decomposing the dioxins in the contaminated matter, wherein the method comprises:

5 mixing at least one of crushed cells and fractions of the crushed cells comprising a pellicle of *Bacillus midousuji* cultured in the presence of a chlorinated aromatic compound which has a substituent comprising an oxygen atom bonded to an aromatic ring and having a chloro group bonded to an aromatic ring, the contaminated matter,
10 and an aqueous medium.

8. The method according to claim 7, wherein the method comprises:

15 separating a solid matter and the aqueous medium from the mixture to obtain the aqueous medium in which the solid matter is removed.

9. The method according to claim 7, wherein the method comprises:

20 secluding a source of the contaminated matter;
soaking the contaminated matter generated from the secluded source of the contaminated matter in water; and
mixing at least one of the crushed cells and the fractions of the crushed cells with the water comprising
25 the contaminated matter.

10. The method according to claim 8, wherein the

method comprises:

secluding a source of the contaminated matter;

soaking the contaminated matter generated from the
secluded source of the contaminated matter in water; and

5 mixing at least one of the crushed cells and the
fractions of the crushed cells with the water comprising
the contaminated matter.

10 11. The method according to claim 9, wherein at least
one of the crushed cells and the fractions of the crushed
cells are mixed with water slurry comprising the
contaminated matter discharged through one method of a high
pressure water washing method for washing the contaminated
matter down by jetting water under high pressure to the
15 source of the contaminated matter and a wet sandblast method
for washing the contaminated matter down by jetting water
and abrasive grains under high pressure to the source of
the contaminated matter.

20 12. The method according to claim 10, wherein at least
one of the crushed cells and the fractions of the crushed
cells are mixed with water slurry comprising the
contaminated matter discharged through one method of a high
pressure water washing method for washing the contaminated
25 matter down by jetting water under high pressure to the
source of the contaminated matter and a wet sandblast method
for washing the contaminated matter down by jetting water

and abrasive grains under high pressure to the source of the contaminated matter.

13. A preparation for decomposing dioxins,
5 comprising at least one of crushed cells and fractions of
the crushed cells which comprise a pellicle of *Bacillus*
midousuji cultured in the presence of a chlorinated
aromatic compound having a substituent comprising an oxygen
atom bonded to an aromatic ring and having a chloro group
10 bonded to an aromatic ring.